Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Use of Portions of Returned 2 GHz	)	IB Docket No. 05-221
Mobile Satellite Service Frequencies	)	

To: The Commission

REPLY COMMENTS OF CTIA – THE WIRELESS ASSOCIATION™

CTIA – The Wireless Association™ ("CTIA")[1] hereby submits these reply comments in the above-captioned proceeding. The record in this proceeding and companion IB Docket 05-220 reflects significant and diverse interest in the 24 MHz of recently abandoned 2 GHz MSS spectrum – and in commencing a rulemaking to determine its best use. Despite multiple opportunities, TMI Communications and Company Limited Partnership ("TMI") and ICO Satellite Services G.P. ("ICO") have not substantiated an actual *need* for additional spectrum. The record does show that they seek additional spectrum for terrestrial ATC operations. As a result, the spectrum should be reallocated to terrestrial use and made available at auction to allow the market to determine its best use.

[1] CTIA – The Wireless Association™ (formally known as the Cellular Telecommunications & Internet Association) is the international organization of the wireless communications industry for both wireless carriers and manufacturers. Membership in the organization covers Commercial Mobile Radio Service ("CMRS") providers and manufacturers, including cellular, broadband PCS, and ESMR, as well as providers and manufacturers of wireless data services and products.

I. THERE IS SIGNIFICANT AND DIVERSE INTEREST IN THE ABANDONED SPECTRUM AND IN PROCEEDING BY RULEMAKING

As a threshold matter, many commenters, including satellite and terrestrial licensees, over-the-air broadcast infrastructure providers, and critical infrastructure industry representatives, agree that the current bifurcated proceedings do not make sense and that the FCC should determine the best use of abandoned spectrum in a single rulemaking.[2] Commenters have identified wide-ranging potential uses for the 24 MHz of abandoned spectrum, including terrestrial CMRS;[3] critical infrastructure industries ("CII");[4] satellite digital audio radio service ("SDARS");[5] broadcast auxiliary service ("BAS");[6] MSS expansion spectrum;[7] ATC;[8] and amateur radio.[9]

The Commission should initiate a rulemaking to address these potential wide-ranging uses. There is no exigency here to preclude a rulemaking. No systems are yet operational. ICO and TMI are not scheduled to commence operations until 2007 and 2008, respectively. This is

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[2] *See* American Petroleum Institute ("API") Comments in IB Docket 05-221 at 7; Cingular Wireless LLC ("Cingular") Comments and Reply Comments in IB Dockets 05-220 & 05-221 at 6-7; CTIA Comments in IB Docket 05-221 at 9-13; Inmarsat Ventures Limited ("Inmarsat") Comments in IB Docket 05-221 at 2; Inmarsat Comments in IB Docket 05-220 at 6; Sirius Satellite Radio Inc. ("Sirius) Comments in IB Docket 05-221 at 3; Total RF Marketing, Inc. ("Total RF") Comments in IB Docket 05-221 at 7; T-Mobile USA, Inc. ("T-Mobile") Comments in IB Docket 05-220 at 10; United States Cellular Corporation ("USCC") Comments in IB Dockets 05-220 & 05-221 at 2.

[3] *See* CTIA Comments in IB Docket 05-221 at 10-13; Cingular Comments and Reply Comments in IB Dockets 05-220 & 05-221 at 5-7; Intel Corporation ("Intel") Reply Comments in IB Docket 05-220 at 12-13; T-Mobile Comments in IB Docket 05-220 at 8-9; USCC Comments in IB Dockets 05-220 & 05-221 at 2-4.

[4] *See* API Comments in IB Docket 05-221 at 7.

[5] *See* Sirius Comments in IB Docket 05-221 at 2.

[6] *See* Society of Broadcast Engineers ("SBE") Comments in IB Docket 05-221 at 1-3; Total RF Comments in IB 05-221 at 6-7.

[7] *See* Inmarsat Comments in IB Docket 05-220 at 32-34.

[8] *See* Letter from Gregory C. Staple, Vinson & Elkins, Counsel for TMI, and Jonathan D. Blake, Covington & Burling, Counsel for TerreStar, to Donald Abelson, Chief, International Bureau, FCC, at 7 (Apr. 19, 2005) ("TMI Letter") ("*To deploy a modern ATC network* . . . at least 2 x 10 MHz of spectrum is needed.") (emphasis added); Letter from Suzanne H. Malloy, Senior Regulatory Counsel, ICO, to Donald Abelson, Chief, International Bureau, FCC, ET Docket Nos. 02-34 & 02-248 at 1 (May 3, 2005) ("ICO Letter") (advocating 2 x 10 MHz "to establish a fully competitive MSS *with an ancillary terrestrial component*") (emphasis added).

[9] *See* Comments of Henry Ruhwiedel in IB Docket 05-221 at 1.

particularly informative, as the FCC indicated in the 2 GHz MSS proceeding that abandoned spectrum "*may* be available for expansion of systems *that are operational*."[10] The diversity of recommended uses, coupled with the significant demand for this spectrum (as demonstrated, for example, by Intel's estimate that the 24 MHz is valued at $9 billion), as well as the fact that neither system is operational, counsels against giving spectrum solely for the benefit of two parties without a full rulemaking to determine its best use.

II. BECAUSE TMI AND ICO SEEK THE ADDITIONAL SPECTRUM FOR ATC, IT SHOULD BE REALLOCATED FOR TERRESTRIAL USE AND MADE AVAILABLE AT AUCTION

The record shows that TMI and ICO seek 2 x 10 MHz of spectrum "[t]o deploy a modern ATC network"[11] to compete with terrestrial CMRS.[12] Where, as here, the two parties seek access to additional spectrum for terrestrial mobile use, the Commission should reallocate it to flexible, terrestrial uses and award the spectrum at auction to the highest and best use. Indeed, as the Commission previously envisioned, ICO and TMI can seek to acquire such reallocated spectrum at auction "to provide additional terrestrial services that would complement their MSS (and ATC) offerings."[13]

Reallocation will comport with the objective to avoid unjust enrichment in Section 309(j) of the Communications Act. In the ATC rulemaking, the FCC found that granting ATC rights with respect to existing MSS spectrum assignments would not result in unjust enrichment in

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[10] *See Establishment of Policies and Service Rules for MSS in the 2 GHz Band, Report and Order*, 15 FCC Rcd 16127, 16139 ¶ 18 (2000) ("*2 GHz Order*") (emphasis added).

[11] TMI Letter at 7. ICO has similarly advocated 2 x 10 MHz "to establish a fully competitive MSS *with an ancillary terrestrial component*," *see* ICO Letter at 1-2 (emphasis added), and has relied on TMI's "showing," *see* ICO Comments in IB 05-221 at 10 & n.29. *See also* Inmarsat Comments in IB Docket 05-220 at 4-5, 18-20, 24, 28; CTIA Comments in IB Docket 05-221 at 7-9; Cingular Comments and Reply Comments in IB Dockets 05-220 & 05-221 at 3, 5; T-Mobile Comments in IB Docket 05-220 at 4 n.11.

[12] *See* TMI Comments in IB Docket 05-221 at 10 n.10, 17.

[13] *New Advanced Wireless Services, Sixth Report and Order, Third Memorandum Opinion and Order, and Fifth Memorandum Opinion and Order*, 19 FCC Rcd 20720, 20742 ¶ 46 & n.94 (2004) ("*AWS Sixth R&O*").

violation of Section 309(j) because "the operating, functional, and cost characteristics of MSS with ATC are sufficiently different from CMRS terrestrial services that we do not believe they will be close substitutes . . . . Thus, we do not believe there is any substantial competitive inequity to CMRS carriers from our grant of ATC to MSS operators."[14] TMI now states that its "*terrestrial/satellite system* will compete vigorously with . . . cellular/SMR/PCS providers" and the MSS/ATC handset will be "essentially indistinguishable in form, price and function from a terrestrial handset."[15] Under these circumstances, the free award of spectrum to provide service that TMI asserts is "indistinguishable" from the service provided by terrestrial CMRS licensees (who must acquire spectrum at auction) would "unjustly enrich MSS operators."[16] Reallocating abandoned spectrum to flexible, terrestrial use and making the spectrum available at auction avoids unjust enrichment, creates a level playing field, and ensures the spectrum will be put to its highest and most effective use for the benefit of the public.

ICO and TMI object to reallocation, claiming that any alternative other than reassignment will cause the spectrum to lie fallow for years.[17] But ICO will not be operational until 2007 and TMI will not initiate commercial service until 2008 and, in any event, there is no requirement that either put to use any additional spectrum it might acquire after those dates. TMI also claims that if abandoned spectrum is reallocated to terrestrial use, "the potential for using these frequencies for innovative international satellite services will be lost."[18] Neither TMI nor ICO is

[14] *Flexibility for the Delivery of Communications by MSS Providers, Report & Order*, 18 FCC Rcd 1962, 2072 ¶ 229 (2003) ("*ATC Order*"), *recon., Order on Reconsideration*, 18 FCC Rcd 13590 (2003), *further recon., Memorandum Opinion and Order and Second Order on Reconsideration*, 20 FCC Rcd 4616 (2005) ("*ATC Second Order on Reconsideration*").

[15] TMI Comments in IB Docket 05-221 at 10 n.10, 17 (emphasis added).

[16] *See ATC Second Order on Reconsideration*, 20 FCC Rcd at 4619 ¶ 10.

[17] *See* TMI Comments in IB Docket 05-221 at 4-5; ICO Comments in IB Docket 05-221 at 6.

[18] TMI Comments in IB Docket 05-221 at 4.

pursuing a global MSS system,[19] however, and both seek additional spectrum for their terrestrial ATC offerings rather than basic mobile satellite service.[20]

III. TMI AND ICO STILL HAVE NOT DEMONSTRATED AN ACTUAL *NEED* FOR ADDITIONAL SPECTRUM

Notwithstanding the *desire* of TMI and ICO for additional spectrum, many commenters (including both satellite and terrestrial licensees) agree that TMI and ICO have not demonstrated an actual *need* for additional spectrum[21] – whether through technical showings or quantitative projections of customer demand or anticipated traffic/loading levels. ICO essentially admits it has not provided "a technical or otherwise compelling showing of need for additional spectrum."[22] TMI repeats its contention that in order to offer inexpensive handsets to compete with cellular and PCS, it needs to place large orders (4.5-6 million handsets) with multiple vendors, which in turn necessitates a customer base of 15-25 million customers and at least 20 MHz of spectrum to serve them.[23] This "if we build it, they will come" assessment is unrelated to demand or any substantive showing of need.[24] Indeed, TMI acknowledges "[t]here is no attempt to forecast the market demand for the service."[25]

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[19] *See* CTIA Comments in IB Docket 05-221 at 11-12.

[20] *See supra* note 11 & accompanying text.

[21] *See* CTIA Comments in IB Docket 05-221 at 3-7; Cingular Comments and Reply Comments in IB Dockets 05-220 & 05-221 at 3-4; Inmarsat Comments in IB Docket 05-220 at 20-25; Sirius Comments in IB Docket 05-221 at 9-10; T-Mobile Comments in IB Docket 05-220 at 2-4; Total RF Comments in IB Docket 05-221 at 4.

[22] *See* ICO Reply Comments in IB Docket 05-220 at 10.

[23] *See* TMI Comments in IB Docket 05-221 at 10, 18-19.

[24] Assuming a generous domestic MSS subscription rate of 500,000 today, *see* CTIA Comments in IB Docket 05-221 at 10-11, TMI's theory means that its request for additional spectrum is premised on serving *thirty to fifty* times or *3000 to 5000%* more customers than the combined amount of customers served by all MSS providers today in the United States (500,000 x 30.00 = 15,000,000; 500,000 x 50.00 = 25,000,000). With four MSS/ATC providers, TMI's theory would call for an MSS/ATC customer base of up to 100 million subscribers – more than half the number of current domestic terrestrial CMRS subscribers (192.6 million). *See* CTIA Comments in IB Docket 05-221 at 10.

[25] TMI Comments in IB Docket 05-221, Ex. C at 3 n.8 (Supplemental Declaration of Peter Cowhey). According to TMI, no attempt is made to assess market demand for TMI/TerreStar's service "because winning customers is the business risk of TMI/TerreStar." *Id*. To the contrary, the risk is to the American public if the FCC gives away

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While the acquisition of spectrum at auction or in the secondary market for a fee serves to ensure such spectrum will be effectively and efficiently used, no such moderating forces exist in the case of the proposed 2 GHz MSS spectrum reassignment. This makes a need-based determination all the more relevant. The Commission's *Big LEO* precedent also demonstrates that a substantiated need showing is highly relevant to determining whether to award additional, valuable spectrum.[26]

A substantiated showing is particularly warranted here where (i) neither TMI nor ICO is operational;[27] (ii) both have more spectrum (8 MHz) than the 5 MHz the FCC found was sufficient to commence operations;[28] (iii) both will have the benefit of ATC, which the FCC found will allow for more efficient use of existing spectrum;[29] and (iv) TMI has access to significant additional L-Band spectrum through its affiliation with Mobile Satellite Ventures ("MSV").[30] In the absence of a substantiated showing, and in the face of significant record

(footnote continued)

spectrum in the absence of a demonstrated need, unnecessarily creating the potential that the spectrum will not be put to its highest and best use.

[26] In the *Big LEO* proceeding, the FCC sought "substantiated projections of [Iridium's] future spectrum requirements," including "demand of Iridium customers for spectrum" and "technical information on . . . projected spectrum use." *Review of Spectrum Sharing Plan Among Non-Geostationary Satellite Orbit MSS Systems in the 1.6/2.4 GHz Bands, Notice of Proposed Rulemaking*, 18 FCC Rcd 1962, 2089-90 ¶¶ 267-68 (2003) ("*Big LEO NPRM*"). TMI/TerreStar argue the Big LEO precedent is inapplicable because "in contrast to the 2 GHz MSS band, the Commission had not adopted a clear policy on how to reassign surrendered Big LEO spectrum." TMI Comments in IB Docket 05-221 at 27. In fact, as recently as February 2003, the FCC made clear "we have not established nor do we do so here any policy or rule regarding the use of additional abandoned [2 GHz MSS] spectrum." *New Advanced Wireless Services, Third Report and Order*, 18 FCC Rcd 2223, 2240 ¶ 32 (2003), *recon*., *AWS Sixth R&O*, 19 FCC Rcd 20720 (2004).

[27] *See supra* note 10 and accompanying text.

[28] *See 2 GHz Order*, 15 FCC Rcd at 16138 ¶ 17 (stating that "five megahertz of spectrum . . . is sufficient for commencement of service").

[29] *See ATC Order*, 18 FCC Rcd at 1974 ¶ 20 (providing for ATC to afford MSS operators "the ability to provide more and better services to both existing and potentially new subscribers *with the same amount of spectrum*," thereby "improv[ing] the efficiency with which they can use the spectrum") (emphasis added),

[30] *See* CTIA Comments in IB Docket 05-221 at 4 n.12 (explaining the TMI/TerreStar affiliation with MSV and commonality of ownership through Motient Corporation).

evidence showing competing demand for the spectrum, there exists no reasoned basis to support a public interest finding in favor of a grant of *additional* spectrum to either of these parties.[31]

In the admitted absence of a substantiated need-based showing, TMI and ICO continue to rely on the *Space Station Licensing* redistribution policy. As has been repeatedly shown, that policy does not apply to 2 GHz MSS.[32] Tellingly, as TMI admits, "the Commission did not apply the spectrum redistribution procedures" in its companion public notices seeking comment on the abandoned 2 GHz MSS spectrum.[33] Even if the redistribution policy did apply, it is intended to provide additional spectrum to licensees "remaining *in operation*" and is rebuttable where there would not be "reasonably efficient use" of the spectrum or where there is a basis "for considering reallocation of the spectrum."[34] As discussed, TMI and ICO are not operational and have not substantiated any need for additional spectrum – let alone demonstrated they will use the additional spectrum efficiently – and there is a substantial basis in the record for "considering reallocation" to other uses, including terrestrial CMRS, SDARS, BAS, and CII.

ICO and TMI repeat prior claims that additional spectrum will "allow" or "enable" them to, among other things, expand broadband access, serve homeland security and public safety needs, enhance competition, and extend service to rural America.[35] As CTIA previously noted,

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[31] *See Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (agency action must rest on reasoned decisonmaking); 5 U.S.C. § 706(2)(A) (precluding arbitrary and capricious decisionmaking); 47 U.S.C. § 316 (restricting the Commission's authority to modify a license to situations where the modification is "in the public interest, convenience, and necessity").

[32] In the *Space Station Licensing* proceeding, the Commission "emphasize[d] that we are not addressing th[e] 2 GHz issue in this proceeding." *Space Station Licensing Rules and Policies, Notice of Proposed Rulemaking*, 17 FCC Rcd 3847, 3864 ¶ 48 & n.54 (2002); *see also, e.g.*, CTIA Comments in IB Docket 05-221 at 6-7 & n.24; Inmarsat Comments in IB Docket 05-221 at 12-13.

[33] *See* TMI Comments in IB Docket 05-221 at 26 n.47.

[34] *See Space Station Licensing Rules and Policies, First Report and Order*, 18 FCC Rcd 10760, 10788 ¶ 61 (2003) (emphasis added).

[35] *See* ICO Comments in IB Docket 05-221 at 5-12; TMI Comments in IB Docket 05-221 at 6-7; *see also* ICO Reply Comments in IB Docket 05-220 at 4-11; TMI Reply Comments in IB Docket 05-220 at i-ii.

if these claims resulted in the grant of additional spectrum, satellite licensees could acquire more spectrum for free simply by associating their requests with these important public interest goals – without any obligation to show that additional spectrum is actually needed to achieve them. Their claims ring especially hollow in the case of 2 GHz MSS, where licenses were issued and ATC rules adopted on the presumption that the *very same public benefits* would be provided within *existing* spectrum assignments.[36] In fact, the Commission determined that the grant of ATC would enable the licensees to use their spectrum more efficiently.[37]

Finally, TMI fails to make the case that additional bandwidth is necessary for basic satellite services. As in TMI's previous submissions, it simply asserts a need to avoid reuse of the same frequencies in adjacent spot beams without acknowledging that this need is driven by its interest in developing ATC operations.[38] To distract from its desire for additional spectrum to support its ATC offering, TMI states that 20 MHz is necessary to ensure all power in the satellite is utilized, and that a satellite with less power will not allow service to sufficient subscribers (15-25 million) to purchase enough phones to justify large bulk orders (4.5-6 million per year) to keep phone costs and functionalities competitive with terrestrial CMRS.[39] TMI's entire theory, however, is based upon subscriber demand that has not been shown to exist.[40] Further, as Inmarsat observed, "[i]f that type of showing were adequate to obtain a spectrum assignment,

[36] *See* CTIA Comments in IB Docket 05-221 at 5 n.16 (citing *2 GHz Order*, 15 FCC Rcd at 16128-29 ¶ 1; *ATC Order*, 18 FCC Rcd at 1974-79 ¶¶ 20, 22, 23, 29, 30).

[37] *See supra* note 29 and accompanying text.

[38] In this most recent submission, TMI relies upon unrealistic satellite antenna sidelobe assumptions to make the case against adjacent beam frequency reuse.

[39] TMI Comments in IB Docket 05-221 at 11, 18-19, Ex. A at 1 n.3.

[40] *See supra* notes 23-25 and accompanying text.

everyone could meet it, simply by specifying an over-sized spacecraft from their manufacturer."[41]

CONCLUSION

For the reasons stated above and in the record in IB Dockets 05-220 and 05-221, the Commission should evaluate the best use of the full 24 MHz of unassigned spectrum in a single rulemaking. To ensure that the spectrum is put to its most efficient and effective use, the spectrum should be reallocated to flexible, terrestrial use and made available at auction to all interested parties.

Respectfully submitted,

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[41] Inmarsat Comments in IB Docket 05-220 at 21.